

## **INFORMATICS, CH4, DATA ANALYTICS: PRESENTING THE FINDING**

### **TESTING, p232**

**1. What is the purpose of testing? List the steps involved.**

Testing checks that a solution produces correct output and does what it should do.

The typical steps involved in testing are as follows.

- decide which tests will be conducted
- create suitable test data
- determine expected results
- conduct the test
- record the actual results
- correct any errors

**2. List the different testing types.**

- informal
- user acceptance
- component
- integration
- system
- installation
- compatibility
- useability
- accessibility

**3. What constitutes good test data?**

- valid data
- valid but unusual data
- invalid data
- boundary condition data

**4. What areas should be tested in a MMOS?**

- media and plug-ins
- hyperlinks
- links to external services
- readability
- calculations
- loading times
- browser compatibility
- CSS
- accessibility
- dynamic features
- load capacity

## **TESTING TABLE, p235**

### **5. What is the purpose of a testing table?**

A testing table is used to record evidence of functionality testing.

## **EVALUATION, p 237**

### **1. What is the purpose of evaluation as the final stage of the problem-solving methodology?**

It checks how well the solution is satisfying the needs of the user for which it was originally created.

### **2. Distinguish between evaluation & testing.**

By the time evaluation begins, the solution has already been proved to work properly and its functionality is no longer in question.

### **3. When are the evaluation criteria determined? What should they be based on?**

The evaluation criteria is determined during the design phase of the problem-solving methodology and are based on the most important qualities that the solution is expected to have when it is designed.

### **4. Distinguish, with the use of an example, between criteria to evaluate efficiency and effectiveness.**

Efficiency can be measured in terms of speed or productivity (work produced in a given time), profitability (income generated verses running costs) and labour requirements (how much labour is required to achieve its productivity level), whilst effectiveness includes completeness, readability, attractiveness, clarity, accuracy, accessibility, timeliness, communication of message, relevance and usability.

C.A.R.A.T.A.C.C.R.U for example.

## **EVALUATION METHODS, p238**

### **5. Distinguish between objective and subjective results.**

Objective results are solid facts that are hard to argue with.

Subjective results can be gained from interviews, questionnaires and surveys.

### **6. When should a solution be evaluated?**

A solution should be evaluated after the solution has been in regular use for some time.

## **ASSESSING YOUR PROJECT PLAN, p239**

1. What type of questions can be answered in evaluating your project plan?
  - Did the project finish on time?
  - What tasks delayed your Project? Why were these delays not anticipated?
  - Could lessons be learned to help the next project finish on time?
  - Did the project finish on budget?
  - What assumptions did we get wrong?
  - Why did this task cost far more than expected? How can we avoid that next time?
  - Why were new requirements being added just weeks before the system was due to go online? Was our analysis a failure?
  - Why did the first three prototypes blow up? Was the design team under-skilled, overworked, under-equipped or working to an impossible deadline?
  
2. In evaluating your project plan evaluation criteria are used to indicate how successful it was in managing your activities. What are some of the criteria you can use?
  - Completeness.
    - Were any significant tasks omitted from the WBS? Were resources included? Was it annotated when required?
  - Maintainability.
    - How easy was it to modify the Gantt Chart to keep it up to date with reality?
  - Accuracy.
    - Were tasks correctly identified and marked as dependent or concurrent? Were tasks in the right sequence? Were time estimates realistic?
  - Readability.
    - Was it easy to see all tasks and their dependencies? Was the chart and its text of a readable size? Were colour choices appropriate?